

WORLD INTELLECTUAL PROPERTY ORGANIZATION International Bureau



INTERNATIONAL APPLICATION PUBLISHED UNDER THE PATENT COOPERATION TREATY (PCT)

(51) International Patent Classification ⁶:

C12Q 1/68

A2

(11) International Publication Number: WO-98/50584

(43) International Publication Date: 12 November 1998 (12.11.98)

(21) International Application Number:

PCT/US98/08926

(22) International Filing Date:

1 May 1998 (01.05.98)

(30) Priority Data:

60/045,400

2 May 1997 (02.05.97)

US

(71) Applicant (for all designated States except US): THE GOV-ERNMENT OF THE UNITED STATES OF AMERICA as represented by THE SECRETARY OF THE DEPART-MENT OF HEALTH AND HUMAN SERVICES, c/o Centers for Disease Control and Prevention, Technology Trans-

fer Offic [US/US]; Atlanta, GA 30329 (US).

(72) Inventors; and

- (75) Inventors/Applicants (for US only): MORRISON, Christine, J. [US/US]; 3110 Tolbert Drive, Decatur, GA 30033 (US). REISS, Errol [US/US]; 3642 Castaway Court, Chamblee, GA 30341 (US). AIDOREVICH, Liliana [VE/VE]; Calle Circunvalación, Manzana B7 #16 Urlo, El Castan Maracay Edo Aragua (VE). CHOI, Jong, Soo [KR/KR]; 202-1506, Sinchungi-Town Apartment, Whangum-dong, Susung-gu, Taegu City 706-040 (KR).
- (74) Agents: WARREN, William, L. et al.; Jones & Askew, 37th floor, 191 Peachtree Street, N.E., Atlanta, GA 30303 (US).

(81) Designated States: AU, CA, JP, US, European patent (AT, BE, CH, CY, DE, DK, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE).

Published

Without international search report and to be republished upon receipt of that report.

(54) Title: NUCLEIC ACIDS FOR DETECTING ASPERGILLUS SPECIES AND OTHER FILAMENTOUS FUNGI

(57) Abstract

Nucleic acids for detecting Aspergillus species and other filamentous fungi are provided. Unique internal transcribed spacer 2 coding regions permit the development of nucleic acid probes specific for five different species of Aspergillus, three species of Fusarium, four species of Mucor, two species of Penecillium, five species of Rhizopus, one species of Rhizopusor, as well as probes for Absidia corymbifera, Cunninghamella elagans, Pseudallescheria boydii, and Sporothrix schenkii. The invention thereby provides methods for the species-specific detection and diagnosis of infection by Aspergillus, Fusarium, Mucor, Penecillium, Rhizopus, Rhizomucor, Absidia, Cunninghamella, Pseudallescheria or Sporthrix in a subject. Furthermore, genus-specific probes are also provided for Aspergillus, Fusarium and Mucor, in addition to an all-fungus nucleic acid probe.